Hanfang Lyu

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Ph.D. Candidate, The Hong Kong University of Science and Technology

ABOUT

I am a researcher in the area of Human-Robot Interaction (HRI) and Human-Computer Interaction (HCI), focusing on understanding how people perceive and engage with different forms of robots while fostering human-robot value alignment. My research aims to enhance human-robot teaming and cultivate meaningful human-robot attachment.

EDUCATION

- **The Hong Kong University of Science and Technology [HKUST]** — *Sep. 2022 - Aug. 2026**
  Doctor of Philosophy (Ph.D.) in Computer Science and Engineering — Hong Kong, China
  - Supervisors: Prof. Xiaojuan Ma and Prof. Fugee Tsung
  - Teaching Assistant in CORE1232 *2022 Spring*, COMP1022P *Fall 2023*, COMP2211 *Fall 2024*

- **The Hong Kong University of Science and Technology (Guangzhou) [HKUST(GZ)]** — *Feb. 2025 - May 2026*
  Cross-Campus Study Program — Hong Kong, China
  - Supervisor: Prof. Fugee Tsung

- **The Hong Kong University of Science and Technology [HKUST]** — *Sep. 2018 - Jun. 2022*
  Bachelor of Science (B.Sc.) in Mathematics (Applied Mathematics Track), and in Computer Science (Additional Major) — Hong Kong, China
  - The Chern Class Graduate with Achievement Scholarship
  - First Class Honors

PUBLICATIONS

[1] **Hanfang Lyu**, Xiaoyu Wang, Nandi Zhang, Shuai Ma, Qian Zhu, Yuhan Luo, Fugee Tsung, and Xiaojuan Ma. Signaling Human Intentions to Service Robots: Understanding the Use of Social Cues during In-Person Conversations. In *CHI Conference on Human Factors in Computing Systems (CHI '25)*. (Honorable Mention Award)

[2] Kangyu Yuan, Li Zhang, **Hanfang Lyu**, Ziqi Pan, Yuanhao Zhang, Junze Li, Bingcan Guo, Jiaxiong Hu, Qingyu Guo, and Xiaojuan Ma. "I Love the Internet Again": Exploring the Interaction Inception of "TikTok Refugees" Flocking into Rednote. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25)*.

[3] **Hanfang Lyu**, Yuanchen Bai, Xin Liang, Ujaan Das, Chuhan Shi, Leiliang Gong, Yingchi Li, Mingfei Sun, Ming Ge, and Xiaojuan Ma. FARPLS: A Feature-Augmented Robot Trajectory Preference Labeling System to Assist Human Labelers' Preference Elicitation. In *29th International Conference on Intelligent User Interfaces (IUI '24)*.

[4] Qingyu Guo, Chao Zhang, **Hanfang Lyu**, Zhenhui Peng, and Xiaojuan Ma. What Makes Creators Engage with Online Critiques? Understanding the Role of Artifacts' Creation Stage, Characteristics of Community Comments, and their Interactions. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)*.

PROJECTS

- **Understanding Human-Robot Collaboration in Construction Tasks** — *Sep. 2024 - Present*
  Methods: Video Content Analysis; Semi-structured Interviews; Graph, Vision and Language Resoning Models — [Ongoing]
- **Robot Task Learning through Virtual Human Demonstration** — *Sep. 2022 - Jun. 2024*
  Tools: Unity (Hololens Mixed Reality Toolkit, Unity Robotics Hub), ROS (Moveit), robosuite, robomimic — [INAIR Joint Lab]
- **A Commonsense Mediated Happiness-building Activity Recommendation System** — *Sep. 2022 - Jun. 2024*
  Supervised by Prof. Xiaojuan Ma; Tools and Datasets: React, COMET Model, HappyDB Dataset — [Final Year Project]

SERVICES

- **Technical Chair and Session Host**, Pre-CHI'25 Forum, Greater Bay ACM SIGCHI Chapter — 2025
- **Reviewer**, 3×CHI LBW '25, CSCW '24, ACM — 2024 - 2025
- **Student Volunteer**, IUI '24, ACM — March, 2024

SKILLS

- **Empirical Research Skills:** User studies (survey, interview, retrospective think-aloud, elicitation, Wizard-of-Oz), statistical analysis (hypothesis testing, regression), qualitative analysis (thematic coding)

- **Programming Tools and Frameworks:** *Python* (Pandas, Pytorch, robosuite, robomimic, OpenAI Gym, ROS Moveit), *C#* (Unity), *C++* (ROS Moveit), *MATLAB*, *R*, *LaTeX*, Web (*HTML*, *CSS*, *JS*, Flask, React, Hugo), *Git*